

fig. 13: Inflorescence and upper scape x 1/2; fig. 14: Sepal x 1.

Type in the U. S. National Herbarium, collected in the State of Rio de Janeiro, Brazil, by Alvim Seidel (No. 62-3).

VRIESEA BARILLETII E. Morr. Belg. Hortic. 33:33, pl. 3. 1883.

BRAZIL: Cultivated in the botanical garden of Liège, 1883, and supposedly coming from Ecuador, E. Morren (LG, type; photo GH). Central Brazil, Alvim Seidel (US).

Alvim Seidel, in his search for new and rare species of ornamental bromeliads, has discovered *Vriesea barilletii* growing naturally in central Brazil. This is not altogether surprising since all its near relatives are Brazilian and the record from Ecuador has long been regarded with suspicion.

SYNOPSIS OF AMERICAN VELLOZIACEAE

SUPPLEMENT II

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As frequently happens, publication in a new field is followed by offers of more material to study. In this instance the study of the unidentified American Velloziaceae from the herbarium of the Royal Botanic Gardens, Kew, has yielded nine novelties and some interesting new records for old species.

The species here are numbered in conformity with the sequence in my original paper in Contributions from the United States National Herbarium, volume 35, part 4. The figures are all natural size.

1a. *VELLOZIA LAEVIS* L. B. Smith, sp. nov.

A *V. macedoni* Woodson, cui affinis, staminibus 6 basi exappendiculatis differt.

Nearly stemless, simple; leaves many, densely subrosulate; sheaths elliptic, 15 mm. long, very closely and coarsely nerved, brown, lustrous, glabrous, dividing and recurving at apex with age; blades long-persistent, linear, attenuate to a rounded retuse apex, 6-8 cm. long, 1.5-3.3 mm. wide, laxly serrulate on the thickened margins and beneath on the keel, glabrous; scape solitary, 8 cm. long, very slender, glabrous; ovary subglobose, 4 mm. long, smooth; tepals elliptic, rounded and apiculate, 12 mm. long, red; stamens 6, about half as long as the tepals, the filaments triangular-dilated at base and short-connate, not appendaged. Fig. 1: Leaf-blade; fig. 2: Ovary, tepal, and stamen.

BRAZIL: Minas Gerais: Among rocks, Caraça, 1824, Riedel s. n. (K, type).

Plate I



Fig. 1-3: *Tillandsia leucolepis*; fig. 4-6: *Vriesea ampla*;
fig. 7-10: *V. hainesiorum*

Plate II

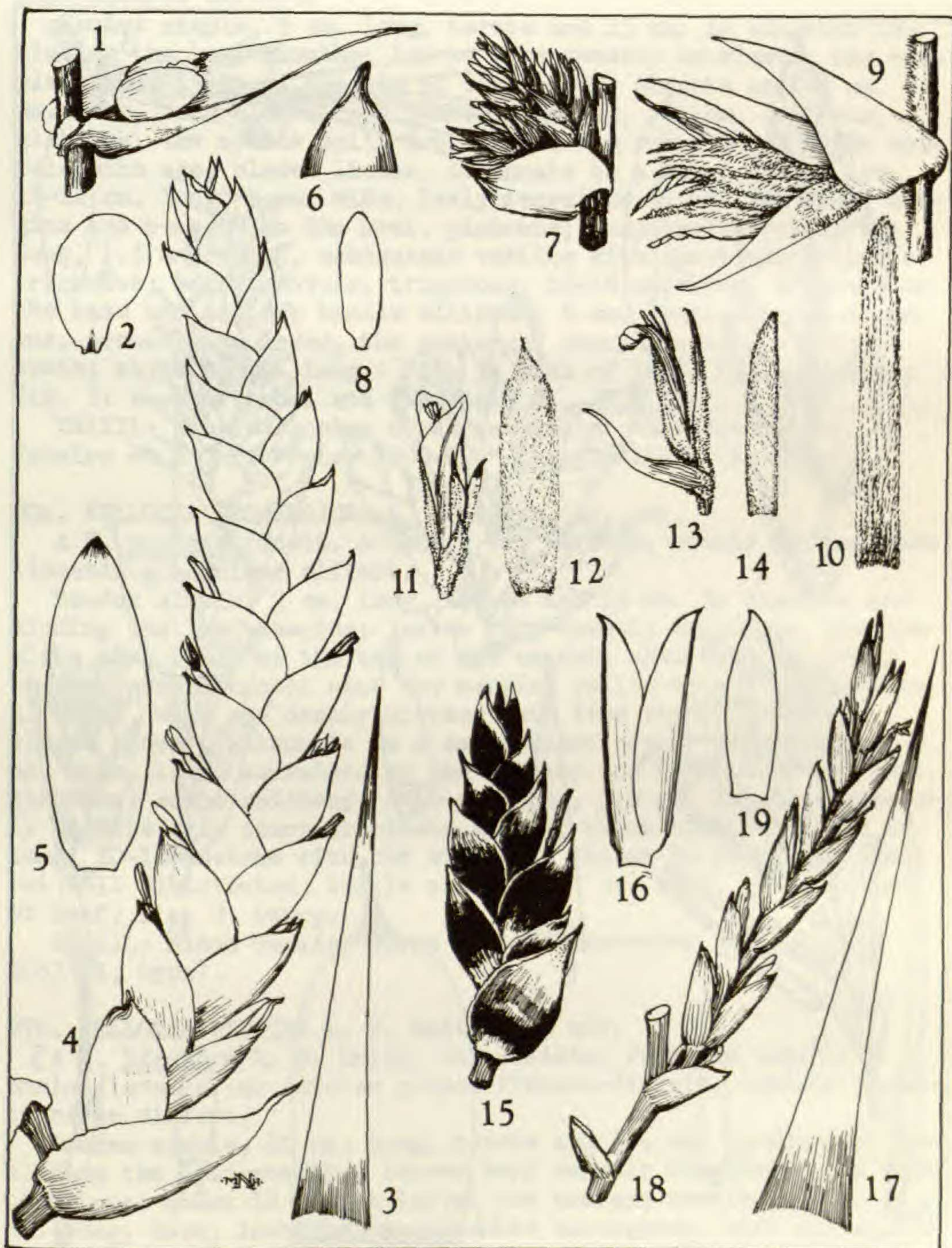


Fig. 1, 2: *Vriesea leucophylla*; fig. 3-5: *Tillandsia romeroi*;
 fig. 6-8: *Vriesea magdalenae*; fig. 9, 10: *Puya commixta*;
 fig. 11, 12: *P. lopezii*; fig. 13, 14: *P. sagasteguii*;
 fig. 15, 16: *Tillandsia lopezii*; fig. 17-19: *T. sagasteguii*.

Plate III



Fig. 1, 2: *Tillandsia truxillana*; fig. 3, 4: *Billbergia microlepis*; fig. 5-7: *Pitcairnia cardenasii*; fig. 8-10: *Tillandsia subtropicalis*; fig. 11: *Aechmea nudicaulis* var. *aequalis*; fig. 12-14: *Quesnelia seideliana*.

11a. VELLOZIA CRISPATA L. B. Smith, sp. nov.

A V. compacta Mart. ex Schult. f., cui affinis, floribus folia superantibus differt.

Caudex simple, 5 cm. long, terete and 13 mm. in diameter including the leaf-sheaths; leaves very densely imbricate, the complete ones 15-25 at the top of the caudex; sheaths ample, ca. 3 cm. long, very closely and coarsely nerved, yellow, lustrous, glabrous, the apices split into fibers and recurved in tight spirals with age; blades linear, attenuate to a blunt retuse apex, 11-12 cm. long, 5 mm. wide, laxly serrulate on the thickened margins and beneath on the keel, glabrous; scape solitary, 12 cm. long, 1.5 mm. thick, subdensely vestite with short pale clavate trichomes; ovary obovoid, trigonous, 16-18 mm. long, scabrous on the base and angles; tepals elliptic, 5 cm. long; stamens numerous, probably included, the phalanges bearing numerous short teeth; style 25 mm. long. Fig. 3: Apex of leaf; fig. 4: Ovary; fig. 5: Base of tepal and stamens.

BRAZIL: Rio de Janeiro or Minas Gerais: "Environs de Rio de Janeiro et d'Ouro Preto, 1883-84," Glaziou 15501 (K, type).

20a. VELLOZIA DROSEROIDES L. B. Smith, sp. nov.

A V. echinata Goeth. & Henr., cui affinis, ovario multicostato lineatim glanduloso differt.

Caudex simple, 3 cm. long, terete and 15 mm. in diameter including the leaf-sheaths; leaves very densely imbricate, the complete ones 10-15 at the top of the caudex; sheaths 2 cm. long, closely nerved except near the margin, yellow-brown, sublustrous, glabrous, with age deeply divided into fine straight fibers; blades linear, attenuate to a small blunt apex, 7-12 cm. long, 3 mm. wide, laxly serrulate on the margins and beneath on the keel, glabrous; scape solitary, 6-10 cm. long, 0.8 mm. thick, subdensely vestite with short-stipitate glands; ovary ellipsoid, 6-8 mm. long, 10-12-costate with the stipitate glands in irregular lines but well distributed; tepals elliptic, 2 cm. long. Fig. 6: Apex of leaf; fig. 7: Ovary.

BRAZIL: Minas Gerais: Serra da Lapa, November 1824, Riedel 1053 (K, type).

27b. VELLOZIA VESTITA L. B. Smith, sp. nov.

A V. bicolore L. B. Smith, cui affinis, foliorum vaginis omnino lanatis per aetatem grosse fibroso-divisis, laminis angustioribus differt.

Caudex simple, 10 cm. long, terete and 3-4 cm. in diameter including the leaf-sheaths; leaves very densely imbricate, the complete ones about 12 at the top of the caudex; sheaths ample, 25 mm. long, dark, lustrous, pale-lanate throughout, with age splitting into very coarse straight fibers; blades linear, attenuate to a minutely blunt apex, 24 cm. long, 14 mm. wide, entire, green and glabrous above, densely white-lanate beneath; scape solitary, 28 cm. long, 2.5 mm. thick, densely and finely stipitate-glandular; ovary subglobose, 10 mm. long, completely covered with very fine stipitate glands; tepals elliptic, 5 cm. long, the outer

densely glandular; stamens included, 12 or more. Fig. 8: Apex of leaf; fig. 9: Flower.

BRAZIL: Minas Gerais: 1892, Glaziou 19935 (K, type).

31a. *VELLOZIA METZGERAE* L. B. Smith, sp. nov.

A *V. pilosa* Goeth. & Henr., cui affinis, foliis dense cinereo-pilosis, floribus folia subduplo superantibus, ovario densissime glanduloso-piloso differt.

Subacaulescent, simple; leaves very densely imbricate, the complete ones 4-5 at the top of the caudex; sheaths ample, 10-15 mm. long, very closely and coarsely nerved, dark brown, sublustrous, glabrous except the pilose apex, with age splitting into straight coarse fibers; blades linear, 5-7 cm. long, 3 mm. wide, densely cinereous-pilose throughout; scape solitary, 9-10 cm. long, 0.7 mm. thick, vestite especially toward apex with short-stipitate glands; ovary globose, 5 mm. long, very densely and finely pilose-glandular; tepals narrowly elliptic, 15-20 mm. long, red, glandular at base and the outer at apex; stamens included; style 14 mm. long. Fig. 10: Apex of leaf; fig. 11: Flower.

BRAZIL: Minas Gerais: Serra da Lapa, November 1824, Riedel s. n. (K, type).

This species is named in honor of Frau Crista Metzger in recognition of her help in making type-photographs of Velloziaceae available.

38a. *VELLOZIA BREVIFOLIA* Seubert var. *ANGUSTIOR* L. B. Smith, var. nov.

A var. *brevifolia* laminis foliorum longioribus angustioribusque differt.

Leaf-blades linear, 5-7 cm. long, 3 mm. wide. Fig. 12: Apex of leaf; fig. 13: Flower.

BRAZIL: Minas Gerais: Serra da Lapa, November 1824, Riedel s. n. (K, type).

38b. *VELLOZIA ARENICOLA* L. B. Smith, sp. nov.

A *V. brevifolia* Seubert, cui affinis, caudici simplici, scapo brevissimo, ovario ellipsoideo differt.

Subacaulescent, simple; leaves very densely imbricate, the complete ones 10-13 at the top of the caudex; sheaths ovate, 2 cm. long, yellow, lustrous, very closely nerved, glabrous, incurved at apex with age and more or less divided; blades linear, obtuse, 6-10 cm. long, 3.5 mm. wide, serrulate on the thickened margins and beneath on the keel, glabrous; scape solitary, very short; flower hidden among the terminal leaves; ovary ellipsoid, 6 mm. long, covered with pale long-stipitate glands; tepals narrowly elliptic, 4 cm. long, the outer glandular at base; stamens numerous, about half as long as the tepals, denticulate-appendaged at base. Fig. 14: Apex of leaf; fig. 15: Ovary.

BRAZIL: Minas Gerais: In sand, Tijuco (Diamantina), December 1824, Riedel s. n. (K, type).

49. VELLOZIA GRANULATA Goeth. & Henr. Blumea 2:373. 1937.

Leaf-blades as short as 2 cm. and as narrow as 4 mm. Fig. 16: Apex of leaf; fig. 17: Flower.

BRAZIL: Minas Gerais: Serra da Lapa, November 1824, Riedel s. n. (K).

60. VELLOZIA SWALLENII L. B. Smith, Contrib. U. S. Nat. Herb. 35: 265, pl. 9, figs. 9, 10. 1962.

BRAZIL: Goiás: Goiás City to Cavalcante, 1828, Burchell 7586 (K). Maranhão: Carolina to Pará, 1829, Burchell 8972 (K).

60a. VELLOZIA BLANCHETIANA L. B. Smith, sp. nov.

A V. swallenii L. B. Smith, cui affinis, foliorum vaginis vix divisis, laminis margine serrulatis, ovarii tuberculis truncatis differt.

Caudex at least 4 cm. long (incomplete), simple (?); leaves very densely imbricate, the complete ones 7-8 at the top of the caudex; sheaths ample, 3 cm. long, dark brown, lustrous, glabrous, closely nerved, splitting but slightly with age but then pectinate-fibrous by the persistence of fine cross-strands; blades linear, attenuate to a filiform apex, 23-28 cm. long, 6-8 mm. wide, serrulate on the thickened margins and obscurely so on the keel beneath, otherwise smooth and glabrous; scapes 2, 5 cm. long, 3 mm. thick at apex, narrowing downward, densely and finely truncate-tuberculate especially toward apex; ovary subcylindric, 1 cm. long, densely truncate-tuberculate; tepals free (only the bases known); style at least 35 mm. long. Fig. 18: Section of leaf-blade; fig. 19: Ovary.

BRAZIL: Bahia: Serra Assurua, near Rio São Francisco, 1828, Blanchet 2814 (K, type).

46a. BARBACENIA PLANTAGINEA L. B. Smith, sp. nov.

Ex affinitate B. hilairei Goeth. & Henr. atque B. oxytepala Goeth. & Henr. sed ab omnibus speciebus foliorum laminis brevibus amplis apice late rotundatis et acuminulatis differt.

Subcaulescent, simple, glabrous; leaves about 7; sheaths broadly ovate, 2 cm. long, closely nerved except the broad thin margin, yellow-brown, lustrous; blades oblong, broadly rounded then long-acuminate, 6-9 cm. long, to 2 cm. wide, serrulate on the thickened margins and beneath on the keel; scape solitary, 10-13 cm. long, 1.3 mm. thick, curved; flowers red; perianth-tube very slenderly and regularly cylindric without enlargement for the ovary, curved, 5 cm. long, 4 mm. in diameter; tepals suberect, oblong, obtuse, 25 mm. long; stamens 12 mm. long; filaments oblong with flaring base and large suborbicular lobes; anthers linear, exceeding the filaments by 5 mm.; ovary 2 cm. long. Fig. 20: Apex of leaf; fig. 21: Flower; fig. 22: Stamen (abaxial side).

BRAZIL: Minas Gerais: Serra da Lapa, December 1824, Riedel 1061 (K, type).

American Velloziaceae

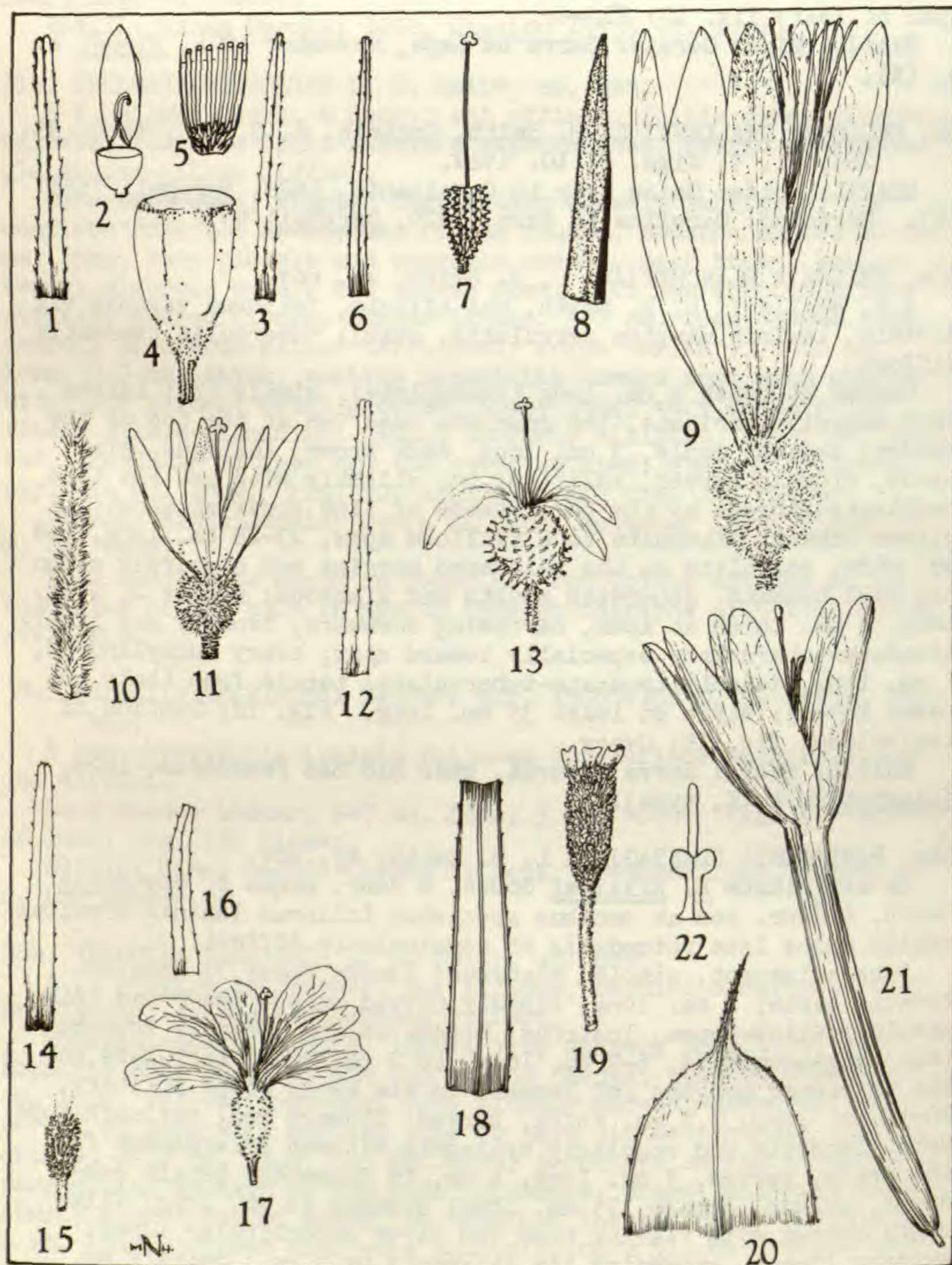


Fig. 1, 2: *Vellozia laevis*; fig. 3-5: *V. crispata*; fig. 6, 7: *V. droseroides*; fig. 8, 9: *V. vestita*; fig. 10, 11: *V. metzgerae*; fig. 12, 13: *V. brevifolia* var. *angustior*; fig. 14, 15: *V. arenicola*; fig. 16, 17: *V. granulata*; fig. 18, 19: *V. blanchetiana*; fig. 20-22: *Barbacenia plantaginea*.